



WASHINGTON STATE LEGISLATURE
Office of the State Actuary

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TO: Steve Nelsen, Executive Director
LEOFF Plan 2 Retirement Board

FROM: Marty McCaulay, Senior Pension Actuary

CC: Matt Smith, State Actuary

SUBJECT: CHANGING THE RETIREMENT AGE FOR LEOFF 2 RETIREMENT BENEFITS

Summary of Results

As requested, we estimated the cost of changing the retirement age for LEOFF 2 retirement benefits. Currently, unreduced benefits are payable at age 53 with five years of service. Early retirement benefits are payable at age 50 with 20 years of service, with a reduction of 3 percent per year before age 53 (a 9 percent reduction at age 50).

We prepared estimates based on a reduction of the retirement age from 53 to 50 with unreduced benefits after at least 20 and five years of service, as well as estimates for unreduced benefits after at least 25 and 20 years of service at any age. Details on the costs of changing the retirement age are shown in Exhibit 1.

Cost Summary - Unreduced Retirement Benefits

Retirement Age	Total Rate Increase Current Members	2007-2009 Total Employer Cost (Millions)	Total Rate Increase New Entrants
Age 50 & 20 years	0.82%	\$10.2	0.36%
Age 50 & 5 years	1.10%	\$13.9	0.60%
25 years of service	1.20%	\$14.7	0.44%
20 years of service	2.80%	\$34.9	1.26%

Members Impacted

Whether or not an active member is impacted depends on the member's hire age; the average hire age is 29. Changing the age for unreduced retirement to age 50 and 20 years would impact 11,596 of the 14,754 active members, as well as new entrants hired before age 33. Changing the age for unreduced retirement

to age 50 and five years would impact 14,558 of the 14,754 active members, as well as new entrants hired before age 48. Changing the requirement for unreduced retirement to 25 years of service (25 and out) would impact 7,409 of the 14,754 active members, as well as new entrants hired before age 28. Changing the requirement for unreduced retirement to 20 years of service (20 and out) would impact 11,596 of the 14,754 active members, as well as new entrants hired before age 33.

Distribution of Active Members by Hire Age

Hire Age	Active Members	Percent
Less than age 28	7,409	50%
Age 28 or later, but less than age 33	4,187	28%
Age 33 or later, but less than age 48	2,962	20%
Greater than or equal to age 48	196	2%
Total	14,754	

Typical Member

For a typical member making about \$69,000 per year and retiring at age 50 with 25 years of service, the retirement benefit would increase from \$28,805 per year (after a 9 percent early retirement reduction) to \$31,654 (with no reduction).

The following chart shows the impact of the proposed changes for a member with an accrued benefit, before reduction, of \$31,654 per year, based on 25 years of service.

Benefits after Reduction based on Age for Unreduced Retirement	Annual Benefit Payable at Age 50	Annual Benefit Payable at Age 48	Annual Benefit Payable at Age 45
Current plan - unreduced at age 53	\$28,805	\$26,906	\$24,057
Proposed plan - unreduced at age 50 with 5 or 20 years of service	\$31,654	\$29,755	\$26,906
Proposed plan - unreduced at any age following 20 or 25 years of service	\$31,654	\$31,654	\$31,654

Analysis of Results

Lowering the retirement age from 53 to 50 reduces the reduction of earned benefits by 9 percent for anyone under age 50 who meets the required years of service (five or 20). The reduction of earned benefits would be eliminated for those over age 50. For retirement at any age based on 20 or 25 years of service, the reduction of earned benefits is eliminated altogether.

The average member is age 40 with 11 years of service. An average member hired at age 29 would not benefit from unreduced retirement after 25 years of service. The average member would be age 54 upon reaching 25 years of service, one year past the age for unreduced benefits under the current plan.

Sensitivity Testing

The cost of the benefit improvements depend on how retirement behavior would change as a result of the lower retirement ages. For example, the total cost increase for the 20 and out benefit ranges from 2.38 percent to 3.20 percent, depending on the retirement rate assumptions. More detail on the sensitivity analysis is shown in Exhibit 3.

Assumptions and Methods

The results are based on preliminary 2004 valuation data and the same actuarial assumptions and methods as disclosed in the 2003 Actuarial Valuation report, with the exception of the retirement rates. For most ages, we assumed that retirement rates would increase by 2.0 percent for each year a member is eligible for retirement under the current retirement age (53). We used a 16 percent rate of retirement for the first year a member became eligible for unreduced benefits. These rates are shown in the Appendix under the heading "Medium Retirement Rates." We also determined costs under low and high retirement rates to test the sensitivity of the rate increase to the retirement rate assumption.

We did not change any other assumptions. Benefit improvements were not applied to currently inactive members. The costs shown would be higher if combined with other benefit improvements. The costs associated with the increased retirement rates were included in the cost of the plan change. The retirement assumptions changed the present value of future salaries and the cost of the proposed changes were based on the difference in the rate before the change and the rate based on the liabilities and present value of salaries after the change.

Exhibit 1
Changing the Retirement Age - All Service

<i>(Dollars in Millions)</i>	Retirement Age	Current	Increase	Total
Actuarial Present Value of Projected Benefits	Age 50 & 20 years	\$4,800	\$67	\$4,867
(The Value of the Total Commitment to all Current Members)	Age 50 & 5 years	\$4,800	\$62	\$4,862
	25 years service	\$4,800	\$85	\$4,885
	20 years service	\$4,800	\$165	\$4,965
Unfunded Liability (PBO)	Age 50 & 20 years	(\$426)	\$62	(\$368)
(The Value of the Total Commitment to all Current Members Attributable to Past Service)	Age 50 & 5 years	(\$426)	\$87	(\$339)
	25 years service	(\$426)	\$99	(\$327)
	20 years service	(\$426)	\$217	(\$209)
Increase in Contribution Rates: * (Effective 09/01/2006)	Age 50 & 20 Years	Age 50 & 5 Years	25 Years Service	20 Years Service
Current Members				
Employee	0.41%	0.55%	0.60%	1.40%
Employer	0.25%	0.33%	0.36%	0.84%
State	0.16%	0.22%	0.29%	0.56%
Total - Current Members	0.82%	1.10%	1.20%	2.80%
New Entrants**				
Employee	0.18%	0.30%	0.22%	0.63%
Employer	0.11%	0.15%	0.13%	0.38%
State	0.07%	0.12%	0.09%	0.25%
Total - New Entrants	0.36%	0.60%	0.44%	1.26%

*For LEOFF 2 the employer pays 60 percent of the Employer State cost, the State pays 40 percent.

**Rate change applied to future new entrant payroll and used for fiscal budget determinations only. A single supplemental rate increase, equal to the increase for current members, would apply initially for all members or employers.

Fiscal Budget Determinations:

The proposal would result in higher contribution rates for all LEOFF 2 members and employers. As a result of the changes in the required contribution rates, the increase in funding expenditures is projected to be:

Costs (in Millions):	Age 50 & 20 Years	Age 50 & 5 Years	25 Years Service	20 Years Service
2006-2007				
State:				
General Fund	\$1.6	\$2.2	\$2.3	\$5.5
Non-General Fund	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total State	\$1.6	\$2.2	\$2.3	\$5.5
Local Government	\$2.4	\$3.3	\$3.5	\$8.2
Total Employer	\$4.0	\$5.5	\$5.8	\$13.7
Total Employee	\$4.0	\$5.5	\$5.8	\$13.7
2007-2009				
State:				
General Fund	\$4.0	\$5.6	\$5.9	\$13.9
Non-General Fund	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total State	\$4.0	\$5.6	\$5.9	\$13.9
Local Government	\$6.2	\$8.4	\$8.8	\$21.0
Total Employer	\$10.2	\$14.0	\$14.7	\$34.9
Total Employee	\$10.2	\$13.9	\$14.7	\$34.9
2006-2031				
State:				
General Fund	\$68.0	\$103.8	\$92.7	\$238.5
Non-General Fund	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total State	\$68.0	\$103.8	\$92.7	\$238.5
Local Government	\$104.5	\$155.4	\$139.2	\$358.1
Total Employer	\$172.5	\$259.2	\$231.9	\$596.6
Total Employee	\$172.6	\$259.3	\$232.1	\$596.5

Exhibit 2
Changing the Retirement Age - Prospective Service Only

The costs shown in Exhibit 1 assume that the entire accrued benefit is unreduced, including service prior to the effective date of the change. Exhibit 2 shows the cost if the benefit improvements were prospective only. For the prospective only cost, the part of the benefit based on service earned after the effective date was unreduced and the part based on service earned before the effective date was reduced. These rate increases for current members would be about half of the rate increases if the entire benefit were unreduced. The rate increases for current members would be the same as the increases for new entrants.

Changing the Retirement Age - Unreduced Benefits for Prospective Service Only

Increase in Contribution Rates: *
(Effective 09/01/2006)

	Retirement Age			
	Age 50 & 20 years	Age 50 & 5 years	25 years service	20 years service
Current Members				
Employee	0.18%	0.30%	0.22%	0.63%
Employer	0.11%	0.18%	0.13%	0.38%
State	0.07%	0.12%	0.09%	0.25%
Total - Current Members	0.36%	0.60%	0.44%	1.26%
New Entrants**				
Employee	0.18%	0.30%	0.22%	0.63%
Employer	0.11%	0.18%	0.13%	0.38%
State	0.07%	0.12%	0.09%	0.25%
Total - New Entrants	0.36%	0.60%	0.44%	1.26%

*For LEOFF 2, the employer pays 60 percent of the Employer State cost, the State pays 40 percent.

**Rate change applied to future new entrant payroll and used for fiscal budget determinations only. A single supplemental rate increase, equal to the increase for current members, would apply initially for all members or employers.

Exhibit 3
Sensitivity to Changes in the Assumed Retirement Rates

The cost depends on how much retirement behavior would change as a result of the lower retirement ages. For example, the 2.80 percent rate increase for current members for unreduced retirement at 20 years of service is based on our best estimate of the increase in retirement rates. Lower retirement rates would produce a lower cost of 2.38 percent and higher retirement rates would produce a higher cost of 3.20 percent.

Increase in Contribution Rates
Based on Low Retirement Rates:
(Effective 09/01/2006)

	Retirement Age			
	Age 50 & 20 Years	Age 50 & 5 Years	25 Years Service	20 Years Service
Total - Current Members	0.64%	0.90%	1.00%	2.38%
Total - New Entrants *	0.28%	0.50%	0.36%	1.08%

Increase in Contribution Rates
Based on High Retirement Rates:
(Effective 09/01/2006)

	Retirement Age			
	Age 50 & 20 Years	Age 50 & 5 Years	25 Years Service	20 Years Service
Total - Current Members	1.00%	1.30%	1.33%	3.20%
Total - New Entrants *	0.42%	0.70%	0.52%	1.44%

**Rate change applied to future new entrant payroll and used for fiscal budget determinations only. A single supplemental rate increase, equal to the increase for current members, would apply initially for all members or employers.*

Appendix

Retirement Rate Assumptions

	Current	Low*	Medium**	High***
Age	Retirement Rates	Retirement Rates	Retirement Rates	Retirement Rates
39	0%	0%	0%	0%
40	0%	1%	2%	3%
41	0%	1%	2%	3%
42	0%	1%	2%	3%
43	0%	1%	2%	3%
44	0%	1%	2%	3%
45	0%	1%	2%	3%
46	0%	3%	4%	5%
47	0%	5%	6%	7%
48	0%	7%	8%	9%
49	0%	9%	10%	11%
50	10%	11%	12%	13%
51	10%	11%	12%	13%
52	10%	11%	12%	13%
53	16%	16%	16%	16%
54	19%	19%	19%	19%
55	24%	24%	24%	24%
56	25%	25%	25%	25%
57	25%	25%	25%	25%
58	33%	33%	33%	33%
59	33%	33%	33%	33%
60	33%	33%	33%	33%
61	37%	37%	37%	37%
62	37%	37%	37%	37%
63	37%	37%	37%	37%
64	48%	48%	48%	48%
65	100%	100%	100%	100%

*14 percent at age when first eligible under age 53, based on age and service.

**16 percent at age when first eligible under age 53, based on age and service.

***18 percent at age when first eligible under age 53, based on age and service.